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10/511,070	10/12/2004	Steven Victor Jones		8765

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The Black & Decker Corporation
Mail Stop TW199
Towson, MD 21286

EXAMINER

MITCHELL, KATHERINE W

ART UNIT	PAPER NUMBER
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3677

MAIL DATE	DELIVERY MODE
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09/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/511,070

Applicant(s)

JONES, STEVEN VICTOR

Examiner

Katherine W. Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8,10,12--20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8,10,12--20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

Claim 20 is objected to because of the following informalities: It is missing the period at the end. Appropriate correction is required.

Claim 1 can be grammatically considered several ways: --greater than the internal diameter of the body, said head having a shoulder portion₁ in contact with the opposed end₁ defining a bearing surface which is substantially perpendicular to the stem...—OR : --greater than the internal diameter of the body, said head having a shoulder portion in contact with the opposed end [and said shoulder portion is implied as the subject] defining a bearing surface which is substantially perpendicular to the stem...—. Clearer punctuation would be helpful.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1-8, 10 and 12-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said head" in line 9. Claim 12 recites "the head" in amended line 12. There is insufficient antecedent basis for this limitation in the claim, since both a tubular body head and a mandrel head have been recited earlier in each respective claim.

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Claims 2-8, 10, and 13-18 are rejected as depending from rejected claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3,5-8,10,12-14,16-18, 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith GB 2332722.

Smith teaches a peel type blind rivet with an elongate tubular body 2 having a shank 6 and preformed head 8 at a first end and expandable portion 16 at opposed end remote from head. The expandable portion comprises a plurality of slots 12 terminating remote from 1st end. The tubular body defines a mandrel accepting bore or aperture of constant internal diameter (ID) –the respective sections of the body on either side of projection 24 (note that “24” is mislabeled as “28” in the Figures, but should be the projection formed by groove 22 displacing inward) can each be considered a mandrel accepting bore of constant ID, and the respective outer surfaces of each portion can be considered surfaces of constant external diameter. There is a mandrel 4 with head 26

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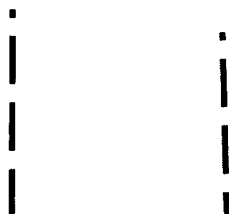
and stem (30,4, Fig 2). The head 26 has a shoulder portion (area of head above "26" extending to include surface "32" is all considered the shoulder – that is, the shoulder is the tapered portion at "28" AND the portion 32 perpendicular to said mandrel stem (Fig 1 below), wherein the shoulder portion is in contact with the opposed end (portion of shoulder at 28 is in contact with opposed end per blown up detail below) AND the shoulder 28/32 also defines a bearing surface (the portion at 32 is the defined bearing surface that is substantially perpendicular to the stem). The maximum head diameter is greater than the ID of the body (page 5 lines 9-11). The said stem has a first cylindrical portion (at 30, Fig 2) adjacent the head having a first generally constant diameter and a second cylindrical portion (at 4, Fig 2) having a second constant diameter greater than the first constant diameter.

Further Re 19: The mandrel stem extends through and is co-axial with said tubular body (Fig 1). The mandrel has a first portion (at 30) disposed adjacent the shoulder, said 1st portion defining a cylindrical surface having a generally constant diameter.

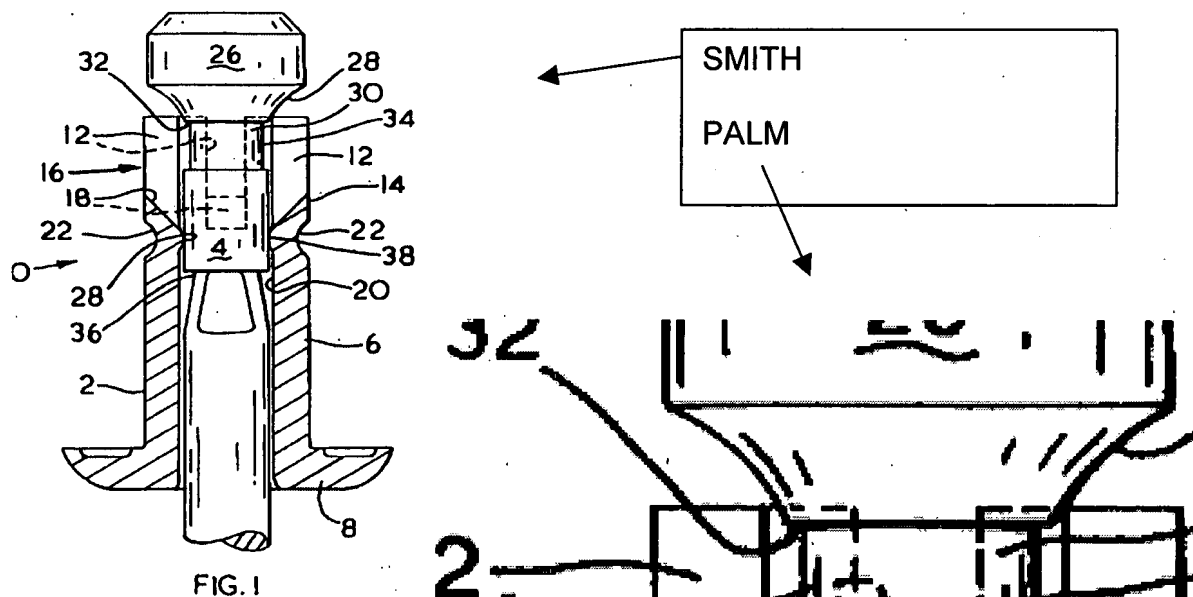
Re claim 20: Breakneck 36 defines 3 angled surfaces, (see Fig 1 and compare to applicant's "136" in Fig 3).

Re 2,13: The opposed end of the shank presents a flat surface (end of "12") perpendicular to said shank axis in Fig 1.

Re claims 3 and 6, 14 and 17: Looking at the slope of the bottom edge of the groove, identified as 18 in Fig 1, it is clear the slot increases in length as it extends from an outer surface to an inner surface. (see also page 3 lines 7-10 and page 6 lines 1-4)



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Re claim 5, 16: Page 3 lines 21-23 teach equal

Note perpendicular
shoulder at 32

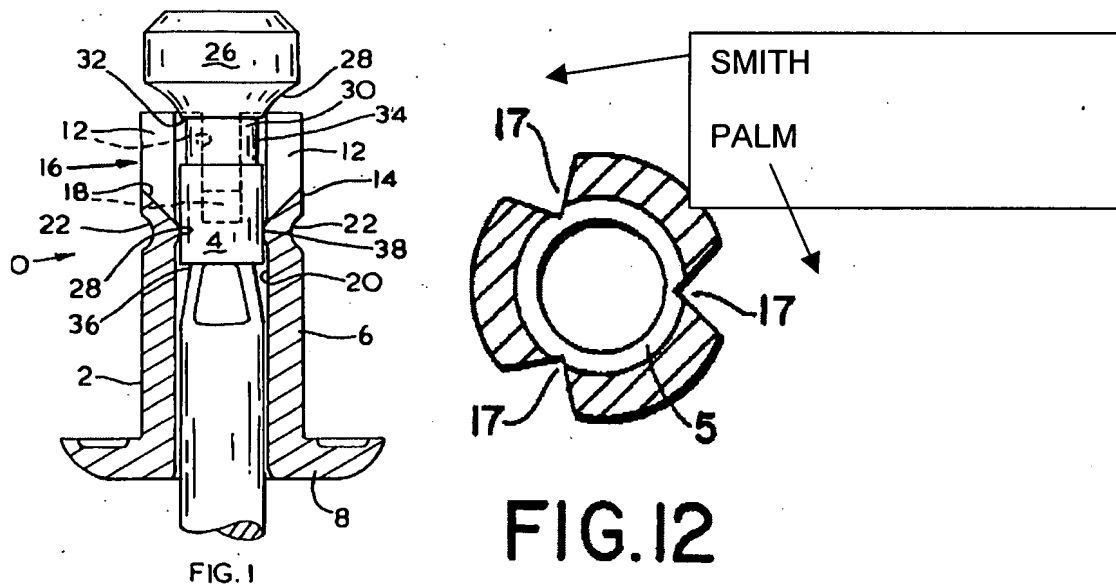
Re claim 7-8, 18: Fig 1 shows constant thickness

that the external diameter of the body is constant along

Re claim 10: Fig 1 above shows the maximum diameter of the head equal to the OD of the shank.

6. Claims 4, 15 are rejected under 35 U.S.C. 103(a) as obvious over Smith GB 2332722 in view of Palm, USP 5183357.

As discussed above, Smith teaches a peel type blind rivet with an elongate tubular body 2 having a shank 6 and preformed head 8 and expandable portion 16 at end opposite head. The expandable portion comprises plurality of slots 12. However, Smith is not specific that a pair of side walls defining the at least one slot are curved.



Palm shows slots 17 extending in a width from an outer surface to an inner surface of said tubular body in Fig 12 and col 5 lines 26-61, and further teaches in Palm col 5 that the sidewalls can be curved:

lines (17) can be selected differently. It is therefore possible to form the notches or grooves in a triangular, 40 polygonal, trapezoidal, or circular cross section.

Trapezoidal-shaped grooves are shown in FIG. 9. trian- Therefore, it would have

been obvious to one of ordinary skill in the art, having the teachings of Smith and Palm before him at the time the invention was made, to modify Smith as taught by Palm to include slots of specific known geometries from a finite group of known geometries, in order to obtain an easier to peel rivet with smooth and more-flush 'collar' formed by the peeled-back sections, and optimum locking, as taught by Palm in col 3 and col 5 lines 35-61.

Response to Arguments

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7. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

8. Note that applicant has independent claims worded so that the shoulder can include both a tapered portion and a perpendicular portion, and such that the elongate tubular body is not synonymous with the mandrel accepting bore – the body “defines” the bore, but can include more, and the shoulder can have different portions such that one portion is a bearing surface and one portion (tapered) is in contact with the opposed end. For example, if it were worded that the elongate tubular body had a constant internal and external diameter, then the entire body would have to be of constant diameter. “Defining an aperture” and “defining and external surface” allows portions to be defined.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kwm

9/25/2007

Katherine W Mitchell
Primary Examiner
Art Unit 3677

